

OPRE REPORT 2015 - 74

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# **Work, Family, and Health Study: An Examination of Attriters**

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August 2015

# WORK, FAMILY, AND HEALTH STUDY: AN EXAMINATION OF ATTRITERS

## FINAL REPORT

**OPRE Report 2015-74**

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Laura Dunlap, Michael Mills, David Kaiser, and Frank Mierzwa, RTI International

### Submitted to:

Emily Schmitt and Tiffany McCormack  
Office of Planning, Research and Evaluation  
Administration for Children and Families  
U.S. Department of Health and Human Services

Principal Investigators: Georgia Karuntzos, PhD, and Jeremy Bray, PhD  
RTI International  
3040 E. Cornwallis Road  
Research Triangle Park, NC 27709

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# Contents

Section	Page
<b>Overview .....</b>	<b>v</b>
<b>Section 1 Introduction .....</b>	<b>1</b>
1.1 Purpose of Report.....	1
1.2 Background.....	1
1.3 Overview of the Work, Family & Health Network .....	2
<b>Section 2 Data and Methods.....</b>	<b>4</b>
2.1 Data .....	4
2.2 Analysis Methods.....	4
<b>Section 3 Results .....</b>	<b>7</b>
3.1 Sociodemographics .....	7
3.2 Work Characteristics.....	10
3.3 Reasons for Leaving Job .....	10
3.4 Workplace Measures .....	14
<b>Section 4 Conclusions .....</b>	<b>22</b>
<b>References.....</b>	<b>24</b>
<b>Appendixes</b>	
<b>A Workplace Measures Defined.....</b>	<b>26</b>
<b>B Mean Change in Workplace Measures, Direct Care Staff Only: Baseline to 6 Months and 12 Months .....</b>	<b>29</b>

## List of Tables

Number	Page
2-1. Completion Counts by Participant Group and Interview Wave .....	4
3-1. Counts of Attriters Who Participated in Study .....	7
3-2. Sociodemographic Characteristics.....	8
3-3. Work Characteristics .....	11
3-4. Primary Reason Reported for Leaving Job by Termination Type .....	13
3-5. Sociodemographic Characteristics by Primary Reason for Leaving Job (Attriters Only).....	15
3-6. Work Characteristics by Primary Reason for Leaving Job (Attriters Only).....	16
3-7. Mean Change in Workplace Measures, Baseline to 6 Months, Stayers Compared with Attriters .....	17
3-8. Mean Change in Workplace Measures, Baseline to 12 Months, Stayers Compared with Attriters .....	19
A-1. Workplace Measures Defined.....	27
B-1. Mean Change in Workplace Measures, Baseline to 6 Months, Direct Care Staff Only.....	30
B-2. Mean Change in Workplace Measures, Baseline to 12 Months, Direct Care Staff Only.....	33

## Overview

**Overview.** This report presents findings from an examination of the sociodemographic and job-related characteristics of active participants in the Work, Family & Health Network (WFHN) study who left their job (i.e., attriters) during the course of the study. The WFHN is a group-randomized evaluation of a workplace intervention designed to increase employees' control over their work time and work schedule, to increase supervisors' support for this change, and to increase employees' and supervisors' focus on results. This report provides a descriptive comparison between individuals who left a company (i.e., attriters) and retained employees (i.e., stayers) and an examination of the attriters' reasons for leaving their jobs.

**Methodology.** Data were collected from employees of a large extended-care services company in the United States. The participating facilities provided a total sample of 1,709 employees whose data were collected from two different surveys: a workplace survey and an attriter survey.

**Summary of findings.** The results indicate that attriters and stayers were similar on several sociodemographic and work characteristics, but they differed on a few key measures that may affect their ability and willingness to remain at a job. On average, attriters tended to be younger and to have smaller household incomes, indicating that attriters may have had less attachment to the workplace and more job mobility compared with stayers. Consistent with much of the published literature on job attrition in nursing care facilities, the primary reasons attriters gave for leaving their job were job-related, such as job satisfaction. Overall, the study findings suggest that direct work characteristics and the intersection of work with personal/family needs are important factors for extended-care workers in deciding whether to remain at a company.

# **Section 1**

## **Introduction**

### **1.1 Purpose of Report**

This report presents findings of an examination of the sociodemographic and job-related characteristics of active participants in the Work, Family & Health Network (WFHN) study who left their job (i.e., attriters) during the study, but remained active participants in the follow-up data collection. Specifically, this report uses data from the larger intervention study to examine how attriters differed from retained employees (i.e., stayers) on these characteristics. It also examines reasons for leaving the job reported by attriters. The WFHN is a multisite randomized controlled trial of an intervention to change the work environment. The objective of this report is to provide descriptive analyses of the attriter group compared with stayers. More sophisticated studies are being conducted by the WFHN research team to examine related areas, such as “intent to quit” and the effect of the intervention on attrition. These studies provide more robust analyses and will be available through peer-reviewed publications.

### **1.2 Background**

In 2010, 15,683 certified nursing home facilities were operating throughout the United States (American Health Care Association [AHCA], 2012). These facilities employed approximately 2 million individuals (AHCA, 2012). Of these individuals, 65% (1.3 million) are responsible for providing direct care to about 1.5 million individuals nationwide (AHCA, 2012), and these staff include certified nursing assistants (NAs) (57%), licensed practical nurses/vocational nurses (LPNs) (21%), and registered nurses (RNs) (8%) (AHCA, 2012), among others. The number of nursing facility staff has been increasing steadily for several decades, and nursing home employees now outnumber steel producers and automakers combined in the United States (Eaton, 2000).

Despite this important work, nursing home facilities often experience extremely high turnover among their nursing staff. Estimates of annual turnover rates vary widely depending on the type of nursing home staff, with one national study finding an average yearly turnover rate of 75% for direct care workers in nursing homes (Donoghue, 2010). Another national study estimated a turnover rate of 53% for direct care staff in 2010 (AHCA, 2012). Previous studies have estimated turnover rates within specific nursing homes to be well over 100% (Castle & Engberg, 2005). These findings demonstrate that turnover among nursing staff in long-term care facilities is high, and this is particularly important given the expected increase in demand for services as the baby boomer generation continues to age. Factors related to attrition have been widely studied and are described below.

Job attrition among nursing facility staff has many negative consequences. Most obviously, nursing staff turnover is costly to employers (Stone & Weiner, 2001). The average direct cost of turnover per direct care worker has been estimated around \$2,500 (Seavey, 2004), with estimated turnover costs of \$2,000 per certified NA and \$7,000 per RN (Caudill & Patrick, 1991). Turnover rates among NAs and RNs have been found to be positively correlated,

meaning greater turnover among nursing facility staff accompany additional turnover among other staff, resulting in a continuation of these costs to facilities (Grant et al., 1996; Kash et al., 2010).

Higher turnover of nursing facility staff has also been shown to result in poor quality of care for patients. The logic for this relationship is straightforward: departing nurses leave with valuable knowledge concerning idiosyncratic backgrounds, habits, and medical conditions of patients. Additionally, nurses who replace those who left do not have the same comfort level or knowledge of organizational culture. This information is vital to the coordination of daily patient care operations (Waxman, Carner, & Berkenstock, 1984). Specifically, RN turnover is associated with increased infections and hospitalizations (Castle & Engberg, 2005; Thomas et al., 2012; Zimmerman et al., 2002). Yet turnover and quality do not have a completely linear relationship; medium and high turnover rates are bad for quality, but low levels of turnover do not appear to affect quality positively or negatively (Castle, Engberg, & Men, 2007).

Much research has been devoted to understanding the reasons for nursing facility staff turnover. Broadly, these reasons include leadership style, organizational culture, and poor working conditions. Donoghue and Castle (2009) investigated the effect of different leadership styles on turnover. They categorized management into two types: consensus managers (those who solicit and act upon input from their staff) and shareholder managers (those who do not solicit input when making decisions and protect information). The researchers determined that consensus managers were significantly associated with lower levels of staff turnover across all nursing staff types relative to shareholder managers. Similarly, the organizational culture of a nursing facility has been linked to nursing staff turnover. Research has shown that organizations with well established, internal processes had significantly lower turnover rates among RNs (Banaszak-Holl et al., 2013). Organizations with lower patient care quality had greater turnover among RNs, LPNs, and NAs (Castle & Engberg, 2005, 2006; Donoghue & Castle, 2006).

Poor working conditions for nursing facility staff members have also been widely cited as a reason for staff to leave their positions. Specific physical conditions can be very taxing on employees. The ratio of caregivers to residents helps to determine whether facilities are staffed appropriately; when the ratio of caregivers to residents was low, voluntary turnover among RNs, LPNs, and certified NAs was higher (Donoghue & Castle, 2006). More burdensome work schedules resulted in overworked employees, lower morale, and thus higher turnover (Castle, Engberg, Anderson, & Men, 2007; Harrington & Swan, 2003). Work conditions can also be emotionally and mentally taxing. Interviewed nursing staff members have specifically noted that patients' "need" for involvement and conversation can be emotionally draining for staff (Eaton, 2000).

### **1.3 Overview of the Work, Family & Health Network**

The WFHN is a group-randomized evaluation of a workplace intervention designed to increase employees' control over their work time and work schedule, to increase supervisors' support for this change, and to increase employees' and supervisors' focus on results. This intervention included employee participation in redesigning work activities and supervisor training and tracking activities to encourage implementation of desired behaviors to promote a more



balanced work-family environment. The evaluation study includes a family/home study to determine whether the workplace intervention affects employees' family members and an employee-level workplace study. There is also an in-depth process study to understand the context within which the intervention occurred and the fidelity of the intervention's implementation.

Although the larger study was implemented in two distinct industries (i.e., a health care industry and an information technology [IT] industry), the data used for this report are for the health care industry only. The Administration for Children and Families (ACF), U.S. Department of Health and Human Services (HHS) funded the follow-up study of attriters within the health care industry. Data were collected from employees of a large extended-care services company (referred to as Leef) that manages 55 extended-care facilities in the Northeast region. The 30 participating Leef work sites focused primarily on providing nursing home services. These sites were randomized to either the intervention or usual practice using an adaptive group randomization algorithm that allowed balancing of sites between the two study conditions based on annualized turnover (range: 8.5% to 48.8%), annualized retention (range: 67.9% to 93.0%), and workplace size in terms of number of direct care employees (range: 42 to 128). Each intervention work site determined the scale of the intervention at that particular facility (e.g., whether to include only direct care staff or all staff). Work sites ranged in size from 61 to 247 total employees (mean of 149) and varied in number of evaluation-eligible employees from 34 to 117 employees (mean of 70).

## Section 2

### Data and Methods

#### 2.1 Data

The data used in this report were collected as part of the larger evaluation study. Within each participating facility, approximately 50 employees were recruited for the study. Employees were eligible to participate if they were normally scheduled to work 22.5 or more hours per week in direct patient care or in relevant positions within the nursing department, and they worked on the day or evening shifts (thus excluding night shift workers). The total study sample was 1,709 Leef employees.

All subjects recruited for the study were given sufficient information through recruiting materials and informed consent documents to make a fully informed decision to participate in the research activities. The recruited subjects understood that no penalties or negative consequences would be imposed for participating or declining participation.

The primary data for this report come from two surveys: the workplace survey and the attriter survey. Computer-assisted interview instruments were developed for workplace employees (workplace survey) and for employees who at post-baseline were no longer working for the company (attriter survey). Data collection was completed in person with active employees at the worksite at baseline and 6, 12, and 18 months post-baseline by trained field interviewers. Data collection was completed by telephone interviewers using computer-assisted telephone interviewing with employees identified during the 6-, 12-, and 18-month post-baseline follow-ups as no longer working at the company (i.e., attriters). **Table 2-1** summarizes completion counts for the workplace and attriter surveys at each wave of collection. Counts presented in this table are not unique individuals. For example, an individual who completed all four workplace surveys would be included in each of the column counts for the appropriate survey wave.

**Table 2-1. Completion Counts by Participant Group and Interview Wave**

Participant Group	Baseline	6 Months	12 Months	18 Months	Total
Workplace survey (at worksite)	1,525	1,275	1,083	1,007	4,889
Attriter survey (by telephone)	NA	82	111	86	279

#### 2.2 Analysis Methods

In all analyses, we conducted means comparisons between stayers and attriters or between different groups of attriters. We adjusted for the clustering of individuals within worksites using Huber-White standard errors. We also tested significance of mean differences using t-tests for continuous variables and chi-squared tests for dichotomous variables, and we adjusted for multiple comparisons within a given analysis using Bonferroni-corrected test statistics. In

instances with low counts of respondents within cells, we did not perform formal statistical tests of significance. These instances are noted in the relevant tables reporting results.

Our primary analyses compared sociodemographic variables and workplace characteristics between stayers and attriters within the WFHN for the Leef worksite. To perform these analyses, we used data from the baseline workplace survey. Sociodemographic variables included respondent's age, gender, race/ethnicity, education level, marital/relationship status, family status (i.e., number of children, children living at home), household income, whether the respondent was born in the United States, and whether the respondent has a spouse/partner who is employed. Workplace characteristics included number of hours worked per week, number of hours commuting to/from work per week, staff type, work schedule, whether respondent had a second job, and hours per week worked at a second job (if applicable).

Using data from the respondent's first wave of the attriter survey, we performed descriptive analyses examining primary reasons for leaving the job. We compared means in sociodemographic and workplace characteristics by attriters who left their job for job-related reasons and attriters who left their job for personal/family reasons.

Finally, we examined workplace measures (scales) captured in the workplace survey that represent the perceived work-family balance. **Appendix Table A-1** presents the key workplace measure scales that we included in our analysis and how each scale should be interpreted. We examined 21 scales of workplace measures, including job satisfaction, time adequacy, intention to quit, perceived stress, and job strain-decision authority, among others. For these analyses, we examined two sets of change variables and controlled for whether the worksite participated in the intervention or continued with business as usual. First, we compared the mean change in each of the workplace measures between the baseline workplace survey and the 6-month workplace survey for stayers and attriters. This analysis included all stayers who completed both the baseline and 6-month workplace surveys, and all attriters whose last workplace survey was 6 months post-baseline and had completed both the baseline and 6-month workplace surveys. Second, we examined the mean change in each of the workplace measures between the baseline and the 12-month workplace surveys for stayers and attriters. This analysis included all stayers who completed both the baseline and 12-month workplace surveys and all attriters who left the company after 12 months post-baseline and had completed both the baseline and 12-month workplace surveys. We used the workplace surveys for attriters rather than the attriter survey to best capture their perceptions of the Leef worksite just prior to quitting, and therefore we did not use the 18-month workplace survey data for either attriters or stayers. Use of the attriter survey would not have captured these perceptions because it asks about their current situation.

For our analyses, we were able to categorize Leef workers participating in the WFHN as direct care staff, staff supervisors, or other staff. Direct care staff included unit nurses, such as LPNs, RNs, certified NAs, and non-certified NAs. This category excluded LPNs and RNs who functioned in the role of unit managers, charge nurses, and nurse supervisors. Staff supervisors included administrators, program directors, nurse unit managers, charge nurses, and nurse supervisors. Other staff included educators, schedulers, administrative assistants, clerks,

receptionists, cooks/chefs, and service coordinators. More than 80% of the individuals participating in the WFHN were direct care staff, and this percentage held when we examined stayers and attriters separately. For several of our analyses, we conducted separate comparisons for all staff and for direct care staff only, and these results are presented in Section 3. Similar analyses were conducted for supervisory and other staff; however, due to small sample sizes, these results are not presented.

## Section 3

### Results

During the WFHN, 362 study participants across the 30 worksites (approximately 22% of the study sample<sup>1</sup>) ended their employment with Leef (i.e., attriters). Of these attriters, approximately 59% (n = 214) left voluntarily, and approximately 28% (n = 101) were involuntarily terminated (**Table 3-1**). For the remaining 13% (n = 47), information on termination type was not available. All of these attriters completed at least the baseline workplace survey, and 47% completed at least one wave of the attriter survey.

**Table 3-1. Counts of Attriters Who Participated in Study**

Termination Type	Total	Did Not Complete Attriter Survey	Completed At Least One Attriter Survey
Voluntary	214	111	103
Involuntary	101	56	45
Missing/Unknown	47	26	21
<b>Total</b>	<b>362</b>	<b>193</b>	<b>169</b>

With the data available to conduct this study, we cannot determine whether attriters did not participate in the attriter study because they refused to do so when contacted or because the study team was not able to track them down and contact them to participate in the attriter study. When looking at baseline demographics between attriters who did not participate and attriters who did participate, on average, those who participated were a few years older, slightly more likely to be white non-Hispanic, slightly more likely to be married and to be married longer, had few children in the home (if they had children), and had a higher household income. Among baseline work characteristics, attriter study participants were slightly less likely to have worked in direct care at Leef, slightly more likely to have been managers or supervisors, and more likely to have had a higher personal income.

### 3.1 Sociodemographics

**Table 3-2** presents sociodemographic characteristics for the attriters compared with study participants who remained employed with the company throughout the duration of the WFHN study (i.e., stayers).<sup>2</sup> As shown, we found no statistically significant differences between attriters and stayers across most sociodemographic characteristics, with one exception. Of those married or living with a partner, attriters tended to be married/living with a partner for less time,

<sup>1</sup> This estimate represents the study sample's turnover rate, not the organization's turnover rate. The turnover rate for the participating Leef sites was 34.4%; however, this estimate excludes sites not selected for participation in the WFHN study.

<sup>2</sup> Similar analyses were conducted for female participants only because they comprised the majority of staff. These results mirror the findings for all participants, and they are available from the research team.

**Table 3-2. Sociodemographic Characteristics**

Characteristic	All						Direct Care					
	Stayers			Attriters			Stayers			Attriters		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Age	1,134	39.260	12.350	362	36.090	12.561	952	38.077	12.189	321	35.160	12.386
Female	1,136	0.926	0.262	362	0.909	0.288	953	0.923	0.266	321	0.900	0.300
<b>Education</b>												
Non-high school graduate/no GED	1,135	0.063	0.242	362	0.039	0.193	952	0.075	0.263	321	0.044	0.205
Grade 12 or GED	1,135	0.331	0.471	362	0.312	0.464	952	0.380	0.486	321	0.352	0.478
1–3 years college	1,135	0.493	0.500	362	0.503	0.501	952	0.463	0.499	321	0.498	0.501
4(+) years college	1,135	0.114	0.318	362	0.146	0.354	952	0.082	0.274	321	0.106	0.308
<b>Race/Ethnicity</b>												
White, non-Hispanic	1,136	0.653	0.476	362	0.691	0.463	953	0.618	0.486	321	0.673	0.470
Black, non-Hispanic	1,136	0.147	0.354	362	0.116	0.321	953	0.162	0.368	321	0.125	0.331
Other, non-Hispanic	1,136	0.070	0.256	362	0.055	0.229	953	0.071	0.258	321	0.050	0.218
Hispanic	1,136	0.129	0.336	362	0.138	0.346	953	0.149	0.356	321	0.153	0.360
<b>Marital/Relationship Status</b>												
Married	1,136	0.425	0.495	362	0.362	0.481	953	0.401	0.49	321	0.346	0.476
Living with partner	1,136	0.207	0.405	362	0.249	0.433	953	0.219	0.414	321	0.255	0.437
Not married/partnered	1,136	0.368	0.482	362	0.390	0.488	953	0.380	0.486	321	0.399	0.490
Years married or living with partner (conditional)	717	12.647***	11.685	221	8.186	9.184	590	11.920***	11.36	193	7.588	8.810

(continued)

**Table 3-2. Sociodemographic Characteristics (continued)**

Characteristic	All						Direct Care					
	Stayers			Attriters			Stayers			Attriters		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
<b>Family Status</b>												
Has any children	1,136	0.767	0.423	362	0.704	0.457	953	0.752	0.432	321	0.695	0.461
Total number of children (conditional)	871	2.383	1.214	255	2.176	1.166	717	2.399	1.211	223	2.152	1.179
Number of children living in home $\geq$ 4 days/week (conditional)	871	1.412	1.190	255	1.247	1.049	717	1.476	1.207	223	1.278	1.067
Number of children at home < 18 years (conditional)	871	1.082	1.156	255	1.059	1.027	717	1.152	1.182	223	1.112	1.031
<b>Household Income</b>												
< \$25,000	1,072	0.155	0.362	335	0.173	0.379	891	0.184	0.388	295	0.197	0.398
\$25,000–\$59,999	1,072	0.491	0.500	335	0.534	0.500	891	0.535	0.499	295	0.556	0.498
$\geq$ \$60,000	1,072	0.354	0.479	335	0.293	0.456	891	0.281	0.450	295	0.247	0.432
Born in United States	1,136	0.712	0.453	362	0.801	0.400	953	0.680	0.467	321	0.794	0.405
Spouse/partner has a job	717	0.792	0.406	220	0.777	0.417	590	0.785	0.411	192	0.776	0.418

SD = Standard deviation

\*\*\*  $p \leq 0.05$  at Bonferroni-corrected level

Source: Baseline workplace survey.

on average, than stayers (8.2 years versus 12.6 years,  $p < 0.05$ ). Overall, the individuals in these two groups were predominantly white females with at least some college education. The majority of these individuals were either married or living with a partner, had children, and had a household income of at least \$25,000.

**Table 3-2** also shows the findings from our examination of sociodemographic differences for direct care staff only.<sup>3</sup> As shown, we found no statistically significant differences in sociodemographic characteristics between direct care stayers and direct care attriters except for length of being married/living with a partner. Among those married or living with a partner, the mean number of years was significantly longer for stayers (11.9 years) than for attriters (7.6 years) ( $p < 0.05$ ).

### 3.2 Work Characteristics

Using data from the baseline workplace survey, we examined job characteristics between attriters and stayers. As shown in **Table 3-3**, attriters and stayers were similar on most of the selected work characteristics. We found statistically significant differences for only three variables. Compared with stayers, a greater percentage of attriters reported working a regular evening schedule (42% versus 32%) ( $p < 0.05$ ), and a smaller percentage reported working a regular day schedule (44% versus 54%) ( $p < 0.05$ ). In addition, a greater percentage of attriters reported having a personal annual income less than \$25,000 compared to stayers (47% versus 35%,  $p < 0.05$ ). For most characteristics, these similarities and differences remained when we examined the direct care staff only. Two exceptions are the percentage who reported working a regular day schedule, which was not significant for direct care staff only, and the percentage of hours worked in a typical week in this job, which was significant for direct care staff only.

### 3.3 Reasons for Leaving Job

As part of the attriter survey, individuals were asked their primary reason for leaving their job. Of the 169 attriters who completed at least one attriter survey, 167 provided a response to this question. The most commonly cited primary reason for leaving the job was job satisfaction (29% overall). This reason also was the most common among attriters who were direct care staff (24% overall). Other common reasons included another opportunity (20%) and personal or family health issues (16%). Reasons for leaving differed when looking at whether the company reported the end of work as voluntary or involuntary (**Table 3-4**). Among voluntary terminations, job satisfaction is the highest reported primary reason for leaving (32% of voluntary exits, 38% of unknown), while some other reason is the highest for those with involuntary terminations (47%). Among involuntary terminations who indicated they left for some other reason, 18 of the 21 (86%) included “Fired” as a response to a follow-up question (although 4 of the 16 voluntary exits reporting some other reason also indicated they had been fired).

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<sup>3</sup> Similar analyses were conducted for supervisors/managers and other staff; however, due to small sample sizes, these results are not presented.



**Table 3-3. Work Characteristics**

Characteristic	All						Direct Care					
	Stayers			Attriters			Stayers			Attriters		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Hours worked in a typical week in this job	1,135	37.219	7.209	362	35.950	7.113	952	36.940***	7.104	321	35.290	6.776
Hours/week commuting to/from work	1,136	3.520	4.886	361	3.465	3.868	953	3.473	4.780	320	3.463	3.982
<b>Staff Type</b>												
Direct care	1,136	0.839	0.368	362	0.887	0.317	953	1.000	0.000	321	1.000	0.000
Management/supervisor	1,136	0.122	0.328	362	0.088	0.284	953	0.000	0.000	321	0.000	0.000
Other staff	1,136	0.039	0.193	362	0.025	0.156	953	0.000	0.000	321	0.000	0.000
<b>Work Schedule</b>												
Variable	1,136	0.048	0.213	362	0.039	0.193	953	0.031	0.175	321	0.025	0.156
Regular day	1,136	0.536***	0.499	362	0.436	0.497	953	0.518	0.500	321	0.436	0.497
Regular evening	1,136	0.320***	0.467	362	0.420	0.494	953	0.348***	0.477	321	0.433	0.496
Rotating	1,136	0.060	0.237	362	0.058	0.234	953	0.064	0.245	321	0.059	0.236
Split	1,136	0.020	0.141	362	0.028	0.164	953	0.021	0.143	321	0.028	0.165
Other	1,136	0.016	0.125	362	0.019	0.138	953	0.017	0.129	321	0.019	0.136

(continued)

**Table 3-3. Work Characteristics (continued)**

Characteristics	All						Direct Care					
	Stayers			Attriters			Stayers			Attriters		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
<b>Personal Annual Income</b>												
< \$25,000	1,131	0.347***	0.476	360	0.475	0.500	949	0.405***	0.491	319	0.536	0.499
\$25,000–\$49,999	1,131	0.465	0.499	360	0.394	0.489	949	0.483	0.500	319	0.395	0.490
≥ \$50,000	1,131	0.188	0.391	360	0.131	0.337	949	0.113	0.316	319	0.069	0.254
Has second job	1,135	0.177	0.382	362	0.204	0.404	952	0.180	0.384	321	0.218	0.414
Hours/week at second job	198	16.596	12.009	74	16.960	10.048	168	17.339	12.199	70	17.330	10.112

SD = Standard deviation

\*\*\*  $p \leq 0.05$  at Bonferroni-corrected level

Source: Baseline workplace survey.

**Table 3-4. Primary Reason Reported for Leaving Job by Termination Type**

Primary Reason for Leaving Job	Voluntary			Involuntary			Missing/Unknown		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
All									
Scheduling or work hours	7	0.068	0.253	1	0.022	0.149	3	0.143	0.359
Job satisfaction	33	0.320	0.469	8	0.178	0.387	8	0.381	0.498
Personal or family health	23	0.223	0.418	3	0.067	0.252	1	0.048	0.218
Children or childcare	5	0.049	0.216	1	0.022	0.149	0	0.000	0.000
Transportation or the job's location	1	0.010	0.099	1	0.022	0.149	0	0.000	0.000
Another opportunity	17	0.165	0.373	9	0.200	0.405	7	0.333	0.483
Some other reason <sup>a</sup>	16	0.155	0.364	21	0.467	0.505	2	0.095	0.301
Direct Care Staff Only									
Scheduling or work hours	5	0.058	0.235	1	0.028	0.167	2	0.105	0.315
Job satisfaction	23	0.267	0.445	4	0.111	0.319	7	0.368	0.496
Personal or family health	23	0.267	0.445	2	0.056	0.232	1	0.053	0.229
Children or childcare	4	0.047	0.212	1	0.028	0.167	0	0.000	0.000
Transportation or the job's location	1	0.012	0.108	1	0.028	0.167	0	0.000	0.000
Another opportunity	16	0.186	0.391	9	0.250	0.439	7	0.368	0.496
Some other reason <sup>a</sup>	13	0.151	0.360	17	0.472	0.506	2	0.105	0.315

Source: Attriter survey

<sup>a</sup> A follow-up question to the response "Some other reason" asked if the respondent did not need to work, had a temporary or short-term assignment that had ended, was fired, was laid off, or had another reason in which case the respondent provided specific information.

We also examined sociodemographic characteristics of attriters by reasons reported for leaving the job. For this analysis, we broadly grouped reasons for leaving into two categories: job-related reasons and personal/family reasons. This grouping allowed us to increase the sample size within each category and simplified the overall interpretation of the analysis reported. Job-related reasons included job satisfaction, scheduling/work hours, job location, and job-related responses that were identified from the "Some Other Reason" category (e.g., poor working conditions, poor management). Personal/family reasons included personal or family health, children or child care, another opportunity, and personal/family-related responses that were

identified from the “Some Other Reason” category (e.g., going back to school, opening own business, change in family situation, spouse relocation). As shown in **Table 3-5**, approximately 57% of attriters reported leaving their job for a job-related reason. Attriters who indicated job-related reasons for leaving the job were slightly younger; had more years of education; and were more likely to be white, single (not married or partnered), and have household incomes greater than \$60,000. They were less likely to have children and, if married/partnered, to have an employed spouse or partner. These differences were not statistically significant within our small sample sizes.

Finally, we examined reported job characteristics by reasons for leaving their job (**Table 3-6**). Attriters who indicated job-related reasons for leaving the job reported shorter commute times, on average, and were more likely to be in supervisory roles. They also were more likely to report rotating or split schedules, to have a higher personal annual income, and to have a second job. Again, these differences were not statistically significant within our small sample sizes.

### **3.4 Workplace Measures**

The workplace surveys collected data on multiple workplace measures (scales) that capture perceived work-family environment. As part of our analyses, we examined the change in these measures between baseline and 6 months and baseline and 12 months, comparing attriters to stayers. To do this analysis, we relied solely on the workplace survey to ensure that we were capturing perceptions about the Leef workplace environment. Although the attriter survey captured similar information, it asked about the individual’s current work situation, which for many would be their new job location rather than Leef. Therefore, the 6-month analysis (shown in **Table 3-7**) includes attriters whose last workplace survey was the 6-month workplace survey. In this case, the 6-month workplace survey represents their last report of work-family environment for Leef. Similarly, the 12-month analysis (shown in **Table 3-8**) includes attriters who were still employed at Leef during the 12-month workplace survey, but left the company before the 18-month workplace survey.

As shown in Table 3-7, stayers and attriters had similar changes on several workplace measures (as measured by the mean change) at the 6-month post-baseline. Although these mean changes were of different magnitudes, and in some instances different directions, across measures, most of these differences were not statistically significant. One exception is intention to quit. On average, attriters reported a much higher intention to quit at 6 months post-baseline than stayers. The mean change score was significantly greater for attriters than stayers. Other findings, although not statistically significant, should be noted. Attriters had greater declines, on average, in perceived time adequacy with children, job satisfaction, control over work hours, and decision authority. Attriters had greater increases, on average, in perceived work-to-family conflict, emotional burnout, and psychological distress.

**Table 3-5. Sociodemographic Characteristics by Primary Reason for Leaving Job (Attriters Only)**

Characteristic	All			Reason for Leaving Job					
				Job-Related Reason			Personal/Family Reason		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Left for job-related reasons	167	0.569	0.497	N/A	N/A	N/A	N/A	N/A	N/A
Age	167	38.144	13.435	95	36.484	12.034	72	40.333	14.891
Female	167	0.934	0.249	95	0.916	0.279	72	0.958	0.201
<b>Education</b>									
Non-high school graduate/No GED	167	0.024	0.153	95	0	0	72	0.056	0.231
Grade 12 or GED	167	0.311	0.464	95	0.284	0.453	72	0.347	0.479
1–3 years college	167	0.527	0.501	95	0.537	0.501	72	0.514	0.503
4+ years college	167	0.138	0.346	95	0.179	0.385	72	0.083	0.278
<b>Race/Ethnicity</b>									
White, non-Hispanic	167	0.731	0.445	95	0.758	0.431	72	0.694	0.464
Black, non-Hispanic	167	0.084	0.278	95	0.074	0.263	72	0.097	0.298
Other, non-Hispanic	167	0.060	0.238	95	0.063	0.245	72	0.056	0.231
Hispanic	167	0.126	0.333	95	0.105	0.309	72	0.153	0.362
<b>Marital/Relationship Status</b>									
Married	167	0.419	0.495	95	0.411	0.495	72	0.431	0.499
Living with partner	167	0.234	0.424	95	0.221	0.417	72	0.250	0.436
Not married/partnered	167	0.347	0.478	95	0.368	0.485	72	0.319	0.470
Years married or living with partner (conditional)	109	9.011	10.313	60	8.257	8.989	49	9.935	11.765
Number of children living in home ≥ 4 days/week (conditional)	121	0.992	0.979	64	1.125	1.062	57	0.842	0.862
<b>Family Status</b>									
Has any children	167	0.725	0.448	95	0.674	0.471	72	0.792	0.409
Total number of children (conditional)	121	2.190	1.267	64	2.125	1.134	57	2.263	1.408
Number of children at home < 18 years (conditional)	121	0.769	0.892	64	0.859	0.99	57	0.667	0.764
<b>Household Income</b>									
< \$25,000	154	0.149	0.358	88	0.159	0.368	66	0.136	0.346
\$25,000–\$59,999	154	0.474	0.501	88	0.432	0.498	66	0.530	0.503
≥ \$60,000	154	0.377	0.486	88	0.409	0.494	66	0.333	0.475
Born in United States	167	0.832	0.375	95	0.832	0.376	72	0.833	0.375
Spouse/partner has a job	109	0.807	0.396	60	0.850	0.36	49	0.755	0.434

Source: Baseline workplace survey for sociodemographics and attriter survey for reasons for leaving job

**Table 3-6. Work Characteristics by Primary Reason for Leaving Job (Attriters Only)**

Characteristic	All			Reason for Leaving Job					
				Job-Related Reason			Personal/Family Reason		
	N	Mean	SD	N	Mean	SD	N	Mean	SD
Hours worked in a typical week in this job	167	35.800	7.128	95	36.110	7.453	72	35.400	6.707
Hours/week commuting to/from work	167	3.354	4.664	95	2.964	3.073	72	3.867	6.156
<b>Staff Type</b>									
Direct care	167	0.832	0.375	95	0.800	0.402	72	0.875	0.333
Management/ supervisor	167	0.138	0.346	95	0.168	0.376	72	0.097	0.298
Other staff	167	0.030	0.171	95	0.032	0.176	72	0.028	0.165
<b>Work Schedule</b>									
Variable	167	0.042	0.201	95	0.032	0.176	72	0.056	0.231
Regular day	167	0.437	0.498	95	0.400	0.492	72	0.486	0.503
Regular evening	167	0.407	0.493	95	0.411	0.495	72	0.403	0.494
Rotating	167	0.078	0.269	95	0.116	0.322	72	0.028	0.165
Split	167	0.012	0.109	95	0.021	0.144	72	0.000	0.000
Other	167	0.024	0.153	95	0.021	0.144	72	0.028	0.165
<b>Personal Annual Income</b>									
< \$25,000	167	0.455	0.499	95	0.411	0.495	72	0.514	0.503
\$25,000–\$49,999	167	0.371	0.485	95	0.400	0.492	72	0.333	0.475
≥ \$50,000	167	0.174	0.380	95	0.189	0.394	72	0.153	0.362
Has second job	167	0.204	0.404	95	0.274	0.448	72	0.111	0.316
Hours/week at second job	34	16.970	10.504	26	16.960	10.604	8	17.000	10.889

SD = Standard deviation

Source: Baseline workplace survey for sociodemographics and attriter survey for reasons for leaving job

**Table 3-7. Mean Change in Workplace Measures, Baseline to 6 Months, Stayers Compared with Attriters**

Workplace Measure	Stayers				Attriters <sup>a</sup>			
	N	Baseline (SD)	6 Months (SD)	Change (SD)	N	Baseline (SD)	6 Months (SD)	Change (SD)
Organizational Climate for Work-Family Issues [Scale 1 to 5]	1,041	2.908 (0.822)	2.874 (0.87)	-0.034 (0.84)	184	2.743 (0.846)	2.667 (0.835)	-0.076 (0.958)
Time Adequacy (All) [Scale 1 to 5]	1,010	3.433 (0.654)	3.435 (0.625)	0.002 (0.601)	181	3.381 (0.63)	3.314 (0.656)	-0.067 (0.7)
Time Adequacy with Children (Conditional) [Scale 1 to 5]	536	3.85 (0.609)	3.882 (0.606)	0.033 (0.572)	97	3.814 (0.668)	3.706 (0.63)	-0.108 (0.644)
Time Adequacy with Family [Scale 1 to 5]	1,034	3.132 (0.734)	3.095 (0.702)	-0.037 (0.778)	187	3.056 (0.671)	2.992 (0.74)	-0.064 (0.792)
Work-to-Family Conflict [Scale 1 to 5]	1,053	2.764 (0.892)	2.73 (0.87)	-0.034 (0.814)	186	2.903 (0.969)	2.998 (0.967)	0.095 (0.832)
Emotional Burnout [Scale 1 to 7]	1,049	4.459 (1.621)	4.323 (1.669)	-0.137*** (1.364)	188	4.608 (1.631)	4.871 (1.69)	0.262 (1.374)
Job Satisfaction [Scale 1 to 5]	1,053	4.223 (0.628)	4.198 (0.627)	-0.026*** (0.584)	187	4.128 (0.68)	3.861 (0.789)	-0.267 (0.778)
Intention to Quit [Scale 1 to 5]	1,049	2.041 (0.967)	2.047 (0.973)	0.006*** (0.9)	187	2.254 (1.019)	2.799 (1.244)	0.545 (1.185)
Next 12 months, think you will lose job or be laid off [Scale 1 to 5]	1,043	3.37 (0.654)	3.325 (0.659)	-0.045 (0.712)	186	3.446 (0.649)	3.242 (0.728)	-0.204 (0.721)
Next 12 months, think spouse/partner will lose job/be laid off [Scale 1 to 5]	455	3.163 (0.821)	3.13 (0.784)	-0.033 (0.824)	76	3.263 (0.885)	3.276 (0.759)	0.013 (0.887)
Easy to find job with another employer [Scale 1 to 3]	1,040	2.128 (0.698)	2.153 (0.676)	0.025 (0.659)	186	2.022 (0.712)	1.962 (0.677)	-0.059 (0.8)

(continued)

**Table 3-7. Mean Change in Workplace Measures, Baseline to 6 Months, Stayers Compared with Attriters (continued)**

Workplace Measure	Stayers				Attriters <sup>a</sup>			
	N	Baseline (SD)	6-months (SD)	Change (SD)	N	Baseline (SD)	6-months (SD)	Change (SD)
Easy for spouse/partner to find job with another employer [Scale 1 to 3]	460	2.337 (0.721)	2.372 (0.691)	0.035 (0.666)	74	2.446 (0.724)	2.284 (0.731)	-0.162 (0.811)
Control Over Work Hours [Scale 1 to 5]	1,046	2.662 (0.719)	2.626 (0.757)	-0.036 (0.723)	185	2.609 (0.745)	2.506 (0.712)	-0.102 (0.780)
Interpersonal Conflict [Scale 1 to 5]	1,051	3.374 (1.073)	3.313 (1.108)	-0.061 (1.053)	187	3.561 (1.042)	3.46 (1.117)	-0.102 (1.019)
Safety Compliance [Scale 1 to 5]	1,053	4.494 (0.490)	4.454 (0.497)	-0.039 (0.519)	187	4.492 (0.486)	4.468 (0.559)	-0.024 (0.624)
Proportion of respondents had an accident or injury at work	1,053	0.166 (0.372)	0.134 (0.341)	-0.032 (0.435)	187	0.278 (0.449)	0.209 (0.407)	-0.070 (0.509)
Number of times respondent had accident or injury at work	58	2.379 (6.175)	2.966 (4.499)	0.586 (6.424)	21	2.524 (3.516)	2.190 (2.75)	-0.333 (3.152)
Psychological Distress [Score ranging from 6 to 30]	1,051	11.903 (4.345)	11.398 (4.095)	-0.505 (3.888)	187	11.743 (4.572)	11.984 (4.692)	0.241 (3.949)
Perceived Stress [Score ranging from 4 to 20]	1,052	9.509 (3.054)	9.235 (2.891)	-0.274 (2.801)	186	9.500 (3.427)	9.301 (3.206)	-0.199 (3.063)
Job Strain-Decision Authority Scale [Scale 1 to 5]	1,046	3.472 (0.757)	3.465 (0.723)	-0.007 (0.719)	186	3.362 (0.736)	3.312 (0.775)	-0.050 (0.835)
Job Strain-Psychological Job Demands [Scale 1 to 5]	1,055	3.82 (0.736)	3.776 (0.735)	-0.044 (0.647)	187	3.824 (0.782)	3.845 (0.712)	0.021 (0.660)

SD = Standard deviation

<sup>a</sup>Includes only those individuals who became attriters after the 6-month workplace surveys.

\*\*\* $p \leq 0.05$  at Bonferroni-corrected level

Source: Baseline and 6-month workplace surveys



**Table 3-8. Mean Change in Workplace Measures, Baseline to 12 Months, Stayers Compared with Attriters**

Workplace Measure	Stayers				Attriters <sup>a</sup>			
	N	Baseline (SD)	12 Months (SD)	Change (SD)	N	Baseline (SD)	12 Months (SD)	Change (SD)
Organizational Climate for Work-Family Issues [Scale 1 to 5]	993	2.916 (0.813)	2.884 (0.859)	-0.033 (0.87)	63	2.810 (0.873)	2.825 (0.778)	0.016 (0.903)
Time Adequacy (All) [Scale 1 to 5]	924	3.443 (0.646)	3.439 (0.654)	-0.004 (0.586)	61	3.294 (0.613)	3.311 (0.620)	0.017 (0.705)
Time Adequacy with Children (Conditional) [Scale 1 to 5]	511	3.857 (0.596)	3.825 (0.621)	-0.032 (0.557)	34	3.735 (0.754)	3.721 (0.639)	-0.015 (0.651)
Time Adequacy with Family [Scale 1 to 5]	979	3.129 (0.743)	3.112 (0.752)	-0.016 (0.792)	63	2.96 (0.674)	3.048 (0.728)	0.087 (0.882)
Work-to-Family Conflict [Scale 1 to 5]	1,002	2.754 (0.885)	2.672 (0.867)	-0.083 (0.827)	63	2.876 (0.996)	2.863 (0.976)	-0.013 (0.861)
Emotional Burnout [Scale 1 to 7]	1,002	4.461 (1.617)	4.291 (1.638)	-0.17 (1.45)	64	4.734 (1.596)	4.807 (1.721)	0.073 (1.401)
Job Satisfaction [Scale 1 to 5]	1,004	4.226 (0.631)	4.153 (0.627)	-0.073 (0.596)	64	4.047 (0.796)	3.786 (0.733)	-0.26 (0.835)
Intention to Quit [Scale 1 to 5]	998	2.021 (0.952)	2.126 (0.999)	0.106*** (0.899)	64	2.211 (0.946)	3.055 (1.260)	0.844 (1.237)
Next 12 months, think you will lose job or be laid off [Scale 1 to 5]	995	3.387 (0.644)	3.323 (0.656)	-0.064 (0.744)	63	3.460 (0.668)	3.206 (0.699)	-0.254 (0.718)
Next 12 months, think spouse/partner will lose job/be laid off [Scale 1 to 5]	420	3.205 (0.788)	3.200 (0.743)	-0.005 (0.82)	24	3.375 (0.824)	3.583 (0.584)	0.208 (0.779)
Easy to find job with another employer [Scale 1 to 3]	991	2.135 (0.702)	2.132 (0.686)	-0.003 (0.678)	64	1.969 (0.689)	2.000 (0.591)	0.031 (0.712)

(continued)

**Table 3-8. Mean Change in Workplace Measures, Baseline to 12 Months, Stayers Compared with Attriters (continued)**

Workplace Measure	Stayers				Attriters <sup>a</sup>			
	N	Baseline (SD)	12 Months (SD)	Change (SD)	N	Baseline (SD)	12 Months (SD)	Change (SD)
Easy for spouse/partner to find job with another employer [Scale 1 to 3]	424	2.323 (0.732)	2.311 (0.726)	-0.012 (0.689)	24	2.208 (0.833)	2.333 (0.816)	0.125 (0.947)
Control Over Work Hours [Scale 1 to 5]	997	2.666 (0.727)	2.648 (0.762)	-0.018 (0.726)	63	2.561 (0.708)	2.582 (0.839)	0.020 (0.805)
Interpersonal Conflict [Scale 1 to 5]	1,001	3.379 (1.078)	3.380 (1.092)	0.001 (1.09)	64	3.570 (1.094)	3.500 (1.039)	-0.070 (0.904)
Safety Compliance [Scale 1 to 5]	1,004	4.497 (0.492)	4.428 (0.495)	-0.069 (0.524)	64	4.422 (0.517)	4.402 (0.485)	-0.02 (0.600)
Proportion of respondents had an accident or injury at work	1,004	0.16 (0.367)	0.124 (0.329)	-0.037 (0.462)	64	0.328 (0.473)	0.219 (0.417)	-0.109 (0.594)
Number of times respondent had accident or injury at work	34	3.500 (8.262)	3.676 (6.447)	0.176 (10.053)	6	1.833 (1.169)	2.833 (2.787)	1.000 (2.53)
Psychological Distress [Score ranging from 6 to 30]	1,003	11.913 (4.341)	11.182 (4.105)	-0.731 (3.652)	64	11.703 (5.098)	12.281 (5.579)	0.578 (5.067)
Perceived Stress [Score ranging from 4 to 20]	1,003	9.497 (3.038)	9.027 (2.869)	-0.470 (2.809)	64	9.266 (3.479)	9.531 (3.72)	0.266 (3.872)
Job Strain-Decision Authority Scale [Scale 1 to 5]	995	3.476 (0.767)	3.476 (0.743)	-0.001 (0.769)	64	3.370 (0.68)	3.453 (0.696)	0.083 (0.781)
Job Strain-Psychological Job Demands [Scale 1 to 5]	1,004	3.814 (0.741)	3.759 (0.735)	-0.055 (0.733)	64	3.766 (0.717)	3.797 (0.676)	0.031 (0.636)

SD = Standard deviation

<sup>a</sup>Includes only those individuals who became attriters after the 12-month workplace surveys.\*\*\* $p \leq 0.05$  at Bonferroni-corrected level.

Source: Baseline and 12-month workplace surveys

**Appendix B** presents these results for analyses of direct care staff only. The results from this analysis are similar to results from the full sample. However, in addition to the intention to quit measure, we found statistically significant differences between direct care stayers and direct care attriters in job satisfaction; that is, direct care attriters had a larger decline in job satisfaction between baseline and 6 months post-baseline than direct care stayers.

**Table 3-8** presents the results for the analysis of change in workplace measures between baseline and 12 months post-baseline. Caution should be exercised in interpreting these findings as the number of attriters within this group is much lower ( $n \leq 70$ ). Again, the only change measure that was found to be statistically significant was intention to quit. Attriters had a much greater increase in intention to quit from baseline to 12 months than stayers. Although not statistically significant, attriters did show some improvements in perceived organizational climate for work-family issues, time adequacy, and decision authority. However, they experienced, on average, increased emotional burnout, psychological distress, and stress, as well as decreased job satisfaction.

**Appendix B** also presents these analyses for direct care staff only for the change between baseline and 12 months post-baseline. Again, the results from this analysis are similar to the full sample. We found statistically significant differences between direct care stayers and direct care attriters in intention to quit, with direct care attriters having a greater increase in this intention from baseline to 12 months than stayers. However, unlike the changes at 6 months, we did not find any statistically significant differences in job satisfaction between baseline and 12 months for these two groups.

## **Section 4**

### **Conclusions**

This study examined sociodemographic and job-related characteristics of nursing home employees who left their job during the WFHN, but remained active participants in the follow-up data collection. Several studies have shown that nursing facilities are challenged with high turnover among their staff. Estimates of annual turnover rates vary widely depending on the type of nursing staff, with one national study finding an average yearly turnover rate of 75% for direct care workers in nursing homes (Donoghue, 2010). Given the costs and lower quality of care that may be associated with this turnover, it is critical to understand the employee and worksite factors that may affect an employee's decision to remain at or leave a job. Therefore, the primary question that this study addressed is whether the two groups (stayers and attriters) are similar on key characteristics.

The findings from our study indicate that, in general, stayers and attriters are similar on sociodemographic and work characteristics. Only one characteristic—years married or living with partner—was found to be statistically significant. These findings may suggest that attriters—who, on average, tend to be younger and are more likely to have smaller household incomes—may have less attachment to the workplace and more job mobility. Evening shift work and low income were also associated with greater attrition. Additional considerations regarding the intervention effects on employee turnover, turnover intentions, and job insecurity are being tested in forthcoming research (Okechukwu et al., 2015).

Furthermore, we did not find statistically significant differences between attriters and stayers on the 6- and 12-month changes from baseline on perceived workplace measures, such as organization climate for work-family issues, time adequacy for family/child needs, control over work hours, decision authority, perceived stress, and job demands. However, attriters had statistically significant increases in the scale for intention to quit compared with stayers.

This study also examined reasons for leaving the job. These data were collected from the attriter survey. Job-related reasons, in particular job satisfaction, was a primary reason for leaving the job, which is consistent with much of the published literature. However, 43% of attriters reported personal/family reasons as the primary reason. These findings suggest that direct work characteristics and the intersection of work with personal/family needs are important factors for workers in deciding whether to remain at a company. Areas for future research include examinations of the characteristics of workers influenced by each of these reasons and ways to determine how to best tailor a work environment to best suit the different needs of workers. For example, younger, non-married workers with less family responsibility may be more likely to cite job-related reasons, whereas older workers with children or elderly parents may be more likely to cite personal/family reasons. Overall, the influence and importance of various work characteristics may differ depending on the phase of the individual's career and personal/family life.

This study has a few limitations that should be noted. First, the purpose of this study was to provide a simple, descriptive examination of the characteristics of attriters. Therefore, we did not attempt to do more rigorous predictive analyses, controlling for multiple variables simultaneously, to help explain observed differences between attriters and stayers. Rather, this study was meant to describe the study sample and not to draw any conclusions beyond this sample. We view the analysis presented here as an exploratory step in trying to better understand job turnover, especially within the nursing home industry. Additional studies, which examine “intent to quit” and the effects of the intervention on attriters, are being conducted and will be published separately in peer-reviewed journal articles. Second, in some instances, our sample size was too small to do formal statistical testing. Given these limitations, these findings should be interpreted with caution and may be limited in their usefulness.

Overall, our findings suggest that attriters and stayers are similar on several sociodemographic and work characteristics, but they differ on a few key measures that may affect their ability and willingness to remain at a job. Similarly, changes over time in selected workplace measures were not statistically significant, although the magnitude and direction of some of these changes were different and warrant further study.

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## **Appendix A**

### **Workplace Measures Defined**



**Table A-1. Workplace Measures Defined**

<b>Workplace Measure</b>	<b>Description</b>	<b>Scale Range</b>	<b>Interpretation</b>
Organizational Climate for Work-Family Issues	Assesses a work climate for making family sacrifices for the sake of their work.	1 to 5	Higher score reflects less pressure to make family sacrifices for work.
Time Adequacy (All)	Reflects whether a respondent feels he or she had enough time for different parts of his or her life, on a regular basis, during the past year.	1 to 5	Higher score reflects a higher level of time adequacy.
Time Adequacy with Children (Conditional) [Scale 1 to 5]	Reflects whether a respondent feels he or she has had enough time for child needs and activities involving children, on a regular basis, during past year.	1 to 5	Higher score reflects a higher level of time adequacy.
Time Adequacy with Family	Reflects whether a respondent feels he or she has had enough time for family needs and activities involving family on a regular basis, during past year.	1 to 5	Higher score reflects a higher level of time adequacy.
Work-to-Family Conflict	Reflects the degree to which role responsibilities from the work and family domains are incompatible.	1 to 5	Higher score reflects a higher level of conflict.
Emotional Burnout	Reflects the degree to which the three components of burnout syndrome—emotional exhaustion, depersonalization, and reduced personal accomplishment—are present.	1 to 7	Higher score reflects greater burnout.
Job Satisfaction	Reflects global job satisfaction rather than specific facets of job satisfaction.	1 to 5	Higher score reflects greater job satisfaction.
Intention to Quit	Assesses turnover intentions as an outcome.	1 to 5	Higher score reflects greater intention to quit.
Next 12 months, think you will lose job or be laid off	Measures degree to which respondent thinks will lose job.	1 to 5	Higher score reflects greater certainty.
Next 12 months, think spouse/partner will lose job/be laid off	Measures degree to which respondent thinks spouse/partner will lose job.	1 to 5	Higher score reflects greater certainty.
Easy to find job with another employer	Assesses perceived ease of finding another job for employee.	1 to 3	Higher score reflects greater difficulty.

(continued)

**Table A-1. Workplace Measures Defined (continued)**

<b>Workplace Measure</b>	<b>Description</b>	<b>Scale Range</b>	<b>Interpretation</b>
Easy for spouse/partner to find job with another employer	Assesses perceived ease of finding another job for spouse.	1 to 3	Higher score reflects greater difficulty.
Control Over Work Hours	Measures the degree to which employees control the arrangement of the hours that they work.	1 to 5	Higher score reflects greater control.
Interpersonal Conflict	Measures the degree of interpersonal conflict perceived in the workplace.	1 to 5	Higher score reflects greater conflict.
Safety Compliance	Measures degree to which employees report following safety protocols.	1 to 5	Higher score reflects lower safety compliance.
Proportion of respondents had an accident or injury at work	Measures proportion of respondents who had accident/injury at work.	0.00 to 1.00	Higher score reflects greater prevalence of accidents/injury at work.
Number of times respondent had accident or injury at work	Measures quantity of accident/injury conditional on those that had accidents/injury at work.	continuous	Higher score reflects greater number of incidences among those with accident/injury at work.
Psychological Distress	Measures psychological distress using the K6 scale (set of 6 questions) reverse coded.	6 to 30	Higher sum score reflects a higher level of distress.
Perceived Stress	Measures stress appraisals.	4 to 20	Higher score reflects a higher level of stress.
Job Strain-Decision Authority Scale	Measures the level of decision control recognizing when job demands are high and control is low job strain can occur.	1 to 5	Higher score reflects greater decision authority.
Job Strain-Psychological Job Demands	Measures the level of job demands recognizing when job demands are high and control is low job strain can occur.	1 to 5	Higher score reflects greater level of job demands.

**Appendix B**  
**Mean Change in Workplace Measures, Direct Care Staff Only:**  
**Baseline to 6 Months and 12 Months**

**Table B-1. Mean Change in Workplace Measures, Baseline to 6 Months, Direct Care Staff Only**

Workplace Measure	Direct Care					
	Stayers			Attriters		
	N	Mean	SD	N	Mean	SD
Organizational Climate for Work-Family Issues						
Baseline	869	2.873	0.825	162	2.730	0.820
6 months	869	2.830	0.879	162	2.693	0.837
Difference: Baseline to 6 months	869	-0.043	0.857	162	-0.037	0.936
Time Adequacy						
Baseline (All)	843	3.413	0.665	160	3.372	0.622
6 months (All)	843	3.421	0.631	160	3.332	0.651
Difference: Baseline to 6 months	843	0.008	0.618	160	-0.041	0.694
Time Adequacy with Children						
Baseline (Conditional)	455	3.852	0.618	86	3.823	0.675
6 months (Conditional)	455	3.887	0.617	86	3.706	0.645
Difference: Baseline to 6 months	455	0.034	0.584	86	-0.116	0.639
Time Adequacy with Family						
Baseline	866	3.100	0.737	165	3.052	0.666
6 months	866	3.065	0.702	165	3.000	0.745
Difference: Baseline to 6 months	866	-0.035	0.780	165	-0.052	0.799
Work-to-Family Conflict						
Baseline	879	2.771	0.872	164	2.906	0.959
6 months	879	2.733	0.869	164	2.977	0.977
Difference: Baseline to 6 months	879	-0.038	0.816	164	0.071	0.808
Emotional Burnout						
Baseline	875	4.486	1.625	166	4.602	1.639
6 months	875	4.330	1.677	166	4.813	1.697
Difference: Baseline to 6 months	875	-0.156	1.386	166	0.211	1.395
Job Satisfaction						
Baseline	879	4.203	0.632	165	4.137	0.663
6 months	879	4.184	0.628	165	3.889	0.744
Difference: Baseline to 6 months	879	-0.019***	0.592	165	-0.248	0.767

(continued)

**Table B-1. Mean Change in Workplace Measures, Baseline to 6 Months, Direct Care Staff Only (continued)**

Workplace Measure	Direct Care					
	Stayers			Attriters		
	N	Mean	SD	N	Mean	SD
Intention to Quit						
Baseline	875	2.086	0.970	165	2.239	0.990
6 months	875	2.069	0.961	165	2.785	1.220
Difference: Baseline to 6 months	875	-0.017***	0.906	165	0.545	1.188
Next 12 months, think you will lose job or be laid off						
Baseline	869	3.369	0.665	164	3.457	0.640
6 months	869	3.321	0.678	164	3.232	0.731
Difference: Baseline to 6 months	869	-0.048	0.734	164	-0.226	0.729
Next 12 months, think spouse/partner will lose job/be laid off						
Baseline	364	3.168	0.808	64	3.313	0.814
6 months	364	3.113	0.779	64	3.297	0.790
Difference: Baseline to 6 months	364	-0.055	0.825	64	-0.016	0.807
Easy to find job with another employer						
Baseline	868	2.129	0.697	164	2.055	0.711
6 months	868	2.153	0.670	164	1.988	0.683
Difference: Baseline to 6 months	868	0.024	0.654	164	-0.067	0.822
Easy for spouse/partner to find job with another employer						
Baseline	368	2.342	0.736	62	2.387	0.754
6 months	368	2.380	0.702	62	2.242	0.717
Difference: Baseline to 6 months	368	0.038	0.676	62	-0.145	0.786
Control Over Work Hours						
Baseline	872	2.592	0.687	163	2.569	0.702
6 months	872	2.573	0.736	163	2.491	0.717
Difference: Baseline to 6 months	872	-0.018	0.736	163	-0.078	0.769
Interpersonal Conflict						
Baseline	877	3.430	1.089	165	3.561	1.055
6 months	877	3.382	1.123	165	3.476	1.139
Difference: Baseline to 6 months	877	-0.048	1.095	165	-0.085	1.060

(continued)

**Table B-1. Mean Change in Workplace Measures, Baseline to 6 Months, Direct Care Staff Only (continued)**

Workplace Measure	Direct Care					
	Stayers			Attriters		
	N	Mean	SD	N	Mean	SD
Safety Compliance						
Baseline	879	4.471	0.488	165	4.494	0.488
6 months	879	4.445	0.501	165	4.459	0.570
Difference: Baseline to 6 months	879	-0.026	0.525	165	-0.035	0.638
Proportion of respondents had an accident or injury at work						
Baseline	879	0.183	0.387	165	0.297	0.458
6 months	879	0.146	0.353	165	0.206	0.406
Difference: Baseline to 6 months	879	-0.038	0.457	165	-0.091	0.516
Number of times respondent had accident or injury at work						
Baseline	52	2.519	6.512	19	2.211	3.225
6 months	52	3.038	4.703	19	2.316	2.868
Difference: Baseline to 6 months	52	0.519	6.749	19	0.105	2.580
Psychological Distress						
Baseline	877	12.170	4.453	165	11.850	4.622
6 months	877	11.670	4.211	165	12.180	4.809
Difference: Baseline to 6 months	877	-0.498	4.070	165	0.333	4.067
Perceived Stress						
Baseline	878	9.674	3.053	164	9.530	3.431
6 months	878	9.384	2.881	164	9.482	3.291
Difference: Baseline to 6 months	878	-0.289	2.844	164	-0.049	3.067
Job Strain-Decision Authority						
Baseline	873	3.387	0.733	164	3.321	0.702
6 months	873	3.401	0.717	164	3.256	0.764
Difference: Baseline to 6 months	873	0.013	0.734	164	-0.065	0.850
Job Strain-Psychological Demands						
Baseline	881	3.818	0.735	165	3.820	0.759
6 months	881	3.764	0.731	165	3.846	0.682
Difference: Baseline to 6 months	881	-0.054	0.633	165	0.026	0.665

**Table B-2. Mean Change in Workplace Measures, Baseline to 12 Months, Direct Care Staff Only**

Workplace Measure	Direct Care					
	Stayers			Attriters		
	N	Mean	SD	N	Mean	SD
Organizational Climate for Work-Family Issues						
Baseline	833	2.885	0.820	59	2.831	0.808
12 months	833	2.848	0.850	59	2.842	0.756
Difference: Baseline to 12 months	833	-0.036	0.864	59	0.011	0.920
Time Adequacy						
Baseline (All)	784	3.429	0.655	57	3.312	0.598
12 months (All)	784	3.422	0.656	57	3.348	0.598
Difference: Baseline to 12 months	784	-0.007	0.598	57	0.036	0.697
Time Adequacy with Children						
Baseline (Conditional)	439	3.864	0.600	33	3.720	0.760
12 months (Conditional)	439	3.817	0.624	33	3.712	0.647
Difference: Baseline to 12 months	439	-0.047	0.559	33	-0.008	0.66
Time Adequacy with Family						
Baseline	824	3.096	0.744	59	2.975	0.685
12 months	824	3.093	0.753	59	3.076	0.736
Difference: Baseline to 12 months	824	-0.003	0.802	59	0.102	0.889
Work-to-Family Conflict						
Baseline	841	2.771	0.873	59	2.864	0.962
12 months	841	2.700	0.862	59	2.844	0.995
Difference: Baseline to 12 months	841	-0.071	0.841	59	-0.020	0.862
Emotional Burnout						
Baseline	841	4.499	1.623	60	4.783	1.576
12 months	841	4.326	1.639	60	4.839	1.666
Difference: Baseline to 12 months	841	-0.173	1.464	60	0.056	1.413
Job Satisfaction						
Baseline	843	4.201	0.638	60	4.056	0.762
12 months	843	4.132	0.630	60	3.772	0.733
Difference: Baseline to 12 months	843	-0.070	0.600	60	-0.283	0.821

(continued)

**Table B-2. Mean Change in Workplace Measures, Baseline to 12 Months, Direct Care Staff Only (continued)**

Workplace Measure	Direct Care					
	Stayers			Attriters		
	N	Mean	SD	N	Mean	SD
Intention to Quit						
Baseline	837	2.068	0.961	60	2.192	0.944
12 months	837	2.173	1.003	60	2.967	1.248
Difference: Baseline to 12 months	837	0.105***	0.911	60	0.775	1.209
Next 12 months, think you will lose job or be laid off						
Baseline	834	3.390	0.654	59	3.508	0.626
12 months	834	3.319	0.669	59	3.203	0.664
Difference: Baseline to 12 months	834	-0.071	0.761	59	-0.305	0.701
Next 12 months, think spouse/partner will lose job/be laid off						
Baseline	335	3.209	0.765	23	3.391	0.839
12 months	335	3.191	0.750	23	3.609	0.583
Difference: Baseline to 12 months	335	-0.018	0.837	23	0.217	0.795
Easy to find job with another employer						
Baseline	832	2.136	0.700	60	1.967	0.688
12 months	832	2.120	0.689	60	2.017	0.596
Difference: Baseline to 12 months	832	-0.016	0.700	60	0.050	0.699
Easy for spouse/partner to find job with another employer						
Baseline	338	2.328	0.748	23	2.174	0.834
12 months	338	2.305	0.738	23	2.304	0.822
Difference: Baseline to 12 months	338	-0.024	0.726	23	0.130	0.968
Control over Work Hours						
Baseline	836	2.595	0.695	59	2.587	0.682
12 months	836	2.594	0.741	59	2.551	0.840
Difference: Baseline to 12 months	836	0.000	0.740	59	-0.037	0.797
Interpersonal Conflict						
Baseline	840	3.436	1.094	60	3.592	1.076
12 months	840	3.448	1.104	60	3.517	1.017
Difference: Baseline to 12 months	840	0.013	1.129	60	-0.075	0.915

(continued)



**Table B-2. Mean Change in Workplace Measures, Baseline to 12 Months, Direct Care Staff Only (continued)**

Workplace Measure	Direct Care					
	Stayers			Attriters		
	N	Mean	SD	N	Mean	SD
Safety Compliance						
Baseline	843	4.479	0.492	60	4.433	0.520
12 months	843	4.417	0.498	60	4.396	0.483
Difference: Baseline to 12 months	843	-0.062	0.529	60	-0.038	0.605
Proportion of respondents had an accident or injury at work						
Baseline	843	0.177	0.382	60	0.350	0.481
12 months	843	0.134	0.341	60	0.233	0.427
Difference: Baseline to 12 months	843	-0.043	0.483	60	-0.117	0.613
Number of times respondent had accident or injury at work						
Baseline	31	3.742	8.625	6	1.833	1.169
12 months	31	3.290	6.029	6	2.833	2.787
Difference: Baseline to 12 months	31	-0.452	9.946	6	1.000	2.530
Psychological Distress						
Baseline	842	12.160	4.434	60	11.620	5.063
12 months	842	11.420	4.198	60	12.250	5.695
Difference: Baseline to 12 months	842	-0.740	3.774	60	0.633	5.175
Perceived Stress						
Baseline	842	9.664	3.027	60	9.333	3.530
12 months	842	9.194	2.861	60	9.600	3.774
Difference: Baseline to 12 months	842	-0.471	2.842	60	0.267	3.978
Job Strain-Decision Authority						
Baseline	835	3.394	0.745	60	3.361	0.653
12 months	835	3.402	0.732	60	3.400	0.683
Difference: Baseline to 12 months	835	0.007	0.780	60	0.039	0.762
Job Strain-Psychological Demands						
Baseline	843	3.817	0.745	60	3.767	0.698
12 months	843	3.750	0.743	60	3.806	0.681
Difference: Baseline to 12 months	843	-0.066	0.747	60	0.039	0.635